

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A processor which operates at a frequency of a clock signal supplied from a clock oscillator and with a power supply voltage supplied from a power supply circuit, and is capable of controlling the frequency of the clock signal and the power supply voltage, wherein

the processor controls the frequency supplied from the clock oscillator and the power supply voltage supplied from the power supply circuit so that energy ~~consumption to process~~ consumed by processing a predetermined amount of data ~~takes a value~~ is within a predetermined range ~~including~~ of a minimum value of the energy consumption, the energy consumption being defined by the frequency, the power supply voltage, and a power supply efficiency of the power supply circuit.

2. (Currently Amended) The processor according to claim 1, comprising:

a ~~section~~ calculator that calculates the energy ~~consumption to process a~~ consumed by processing the predetermined amount of data on the basis of the frequency, the power supply voltage, and the power supply efficiency of the power supply circuit; and

a controller that controls the frequency supplied from the clock oscillator and the power supply voltage supplied from the power supply circuit so that the

energy consumption ~~takes a value~~ is within ~~[[a]]~~ the predetermined range ~~including a~~ of the minimum value of the energy consumption.

3. (Currently Amended) The processor according to claim 1, comprising~~[[;]]~~:

a storage section that stores a table storing the an energy consumption value which is defined by the a frequency, the a power supply voltage, and the a power supply efficiency of the power supply circuit, and a data process related to the energy consumption; and

a controller that controls a frequency supplied from the clock oscillator and a power supply voltage supplied from the power supply circuit on the basis of the table ~~in the storage section so that the energy consumption takes a value within a predetermined range including a minimum value of the energy consumption.~~

4. (Currently Amended) The processor according to claim 1, wherein the processor has a first operation mode and a second operation mode which is different from the first operation mode, and in the first operation mode the frequency supplied from the clock oscillator and a power supply voltage supplied from the power supply circuit is are set so that ~~the energy consumption which is defined by the frequency, the power supply voltage and the power supply efficiency of the power supply circuit, takes a value~~ the energy consumed by processing the predetermined amount of data is within a predetermined range ~~including a~~ of the minimum value of the energy consumption.

5. (Original) The processor according to claim 4, wherein the processor monitors a state of a battery which is connected to the power supply circuit to change the operation mode in accordance with the state of the battery.

6. (Currently Amended) The processor according to claim 4, wherein the processor changes the frequency and the power supply voltage to be set in the first operation mode according to a temperature of the power supply circuit.

7. (Currently Amended) The processor according to claim ~~[[1]]~~ 4, wherein the processor operates in the first operation mode only when carrying out a predetermined process including at least one of a download process, a displaying process of a still picture, and a recording process of an image.

8. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 1.

9. (Currently Amended) A method for driving a processor which operates at a frequency of a clock signal to be supplied from a clock oscillator and with a power supply voltage to be supplied from a power supply circuit, and is capable of controlling the frequency of the clock signal and the power supply voltage, comprising:

controlling the frequency supplied from the clock oscillator and the power supply voltage supplied from the power supply circuit, so that energy ~~consumption to process~~ consumed by processing a predetermined amount of data ~~takes a minimum value of the energy consumption or a value is~~ within a predetermined range ~~including the~~ of a minimum value of energy consumption, the energy consumption being defined by the frequency, the power supply voltage, and power supply efficiency of the power supply circuit.

10. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 2.

11. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 3.

12. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 4.

13. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 5.

14. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 6.

15. (Original) An electronic information device, comprising a clock oscillator, a power supply circuit, and the processor according to claim 7.